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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,152	09/11/2003	Richard C. Helmstetter	PU2175	2151
23454	7590	06/02/2004	EXAMINER	
CALLAWAY GOLF COMPANY 2180 RUTHERFORD ROAD CARLSBAD, CA 92008-7328			BLAU, STEPHEN LUTHER	
			ART UNIT	PAPER NUMBER
			3711	

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/605,152		HELMSTETTER ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Stephen L. Blau		3711	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/10/03</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 6 is objected to because of the following informalities: There are duplicate terms of "a front wall" in line 20. Appropriate correction is required.

### ***Priority***

2. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification of in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number. The patent number needs to be updated for application 10/063,359.

### ***Specification***

3. The disclosure is objected to because of the following informalities: The year "200" in paragraph (0010) does not make sense.  
Appropriate correction is required.

4. The specification is object to under 37 C.F.R. rule 1.71 for not being written to enable one skilled in the art to make the same. Paragraph (0018) does not disclose the specifics of what consists of the volume. Without including the cavity it seems that the material would not displace the amount of volume disclosed.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically it is uncertain what the volume consists of since there is a cavity open to the outside. Is the cavity part of the head volume?

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-3 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-5 of U.S. Patent No. 6,623,374 in view of Davis.

Claims 2-5 of U.S. Patent No. 6,623,374 lack a driver and each of a plurality of fairway woods having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset is approximately zero.

Davis discloses a driver and each of a plurality of fairway woods having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset is approximately zero (Fig. 12). In view of the patent of Davis it would have been obvious to modify the set of clubs of claims 2-5 of U.S. Patent No. 6,623,374 to have a driver and each of a plurality of fairway woods having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset is approximately zero in order provide a set of woods to a professional who does not need an offset to maintain his hand forward of the face at impact.

9. Claims 4-5 and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-5 of U.S. Patent No. 6,623,374 in view of Davis as applied to claims 1-3 above, and further in view of Kilshaw.

Claims 2-5 of U.S. Patent No. 6,623,374 lacks a driver and each of the plurality of fairway woods having an equal face progression. Kilshaw discloses a set of wood shafts having the same tip external diameter (Tables 2-3). In view of the patents of Kilshaw and Davis it would have been obvious to have a driver and each of the plurality of fairway woods having an equal face progression in order to use the same size hosel for each of the woods in a set to simplify the different number of parts needed to be designed and manufactured for a set of woods.

10. Claim 6 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-5 of U.S. Patent No. 6,623,374 in view of Davis and Sacco (5,716,288).

Claims 2-5 of U.S. Patent No. 6,623,374 lack a driver and each of a plurality of fairway woods and irons having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset is approximately zero and irons having a loft from 29-60 degrees.

Sacco discloses a plurality of irons having a loft from 29-60 degrees (Col. 6, Lns. 40-46) having an equal hosel offset as measured from a farthest front portion of the

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hosel to a farthest front portion of the front wall and the hosel offset is approximately zero (Col. 7, Lns. 7-10). In view of the patent of Sacco it would have been obvious to modify the set of clubs of claims 2-5 of U.S. Patent No. 6,623,374 to have a plurality of irons with a loft from 29-60 degrees having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset being approximately zero in order provide a set of irons with different ranges than woods in playing a round of golf to a professional who does not need an offset to maintain his hand forward of the face at impact.

11. Claims 8 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-5 of U.S. Patent No. 6,623,374 in view of Davis and Kilshaw as applied to claims 4-5 and 7 above, and further in view of Miyamoto.

Claims 2-5 of U.S. Patent No. 6,623,374 lacks a driver having a volume greater than 300 cc and fairway woods having a volume less than 300 cc. Miyamoto discloses a driver having a volume greater than 300 cc and fairway woods having a volume less than 300 cc (Table 2). In view of the patent of Miyamoto it would have been obvious to modify the set of woods of Claims 2-5 of U.S. Patent No. 6,623,374 to have a driver having a volume greater than 300 cc and fairway woods having a volume less than 300 cc in order to utilize volumes for a set of woods used in the market place.



***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-317465 in view of Uchiyama, JP 2000-15765, Chappell, and Davis.

JP 5-317465 discloses a wood head composed of a metal material (Constitution) having a front wall, a bottom wall, a top wall, a bottom wall extending a greater distance rearward than the top wall in the form of the middle of the face (Fig. 4), a bottom wall and the top wall defining an open cavity (Fig. 3. Constitution), and a loft (Fig. 4) in order to decrease an amount of spin, increase flying distance, and make it easy to fly up (Purpose).

JP 5-317465 lacks a driver having a loft angle of 7-18 degrees, a moment of inertia for a driver through Izz axis of the center of gravity of at least 2900 grams centimeter squared, a plurality of fairway wood having a loft angle of 19-30 degrees, a moment of inertia for a plurality of fairway woods through Izz axis of the center of gravity of at least 2900 grams centimeter squared, and a driver and each of a plurality of fairway woods having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset is approximately zero.



Uchiyama discloses a wood driver having a loft of 16 degrees (Col. 4, Lns. 4-5). In view of the patent of Uchiyama it would have been obvious to modify the club of JP 5-317465 to have a driver having a loft of 7-18 degrees in order to provide a driver and to maximize hitting distance of a driver by maximizing height in a trajectory of a hit ball for a golfer who tends to hit a ball to low. In addition, it would have been obvious to modify the head of JP 5-317465 to include a driver in order to utilize that advantages of JP 5-317465 for a driver which is to decrease an amount of spin, increase flying distance, and make it easy to fly up.

JP 2000-157651 discloses a wood head having a moment of inertia  $I_{zz}$  in the form of  $Ax$  of 3700 g-cm<sup>2</sup> (Col. 3, Lns. 30-50, Verbal Translation) about a vertical axis Z through the center of gravity of a head (Abstract) in order to ensure the  $I_{zz}$  is not too low and the flying distance and direction become unstable or too high and it is difficult to keep the top sole direction inertia moment (Solution). In view of the patent of JP 2000-157651 it would have been obvious to modify the head of JP 5-317465 to have wood heads having a moment of inertia  $I_{zz}$  of 3700 g-cm<sup>2</sup> about a vertical axis Z through the center of gravity of a head in order to have a stable flying distance and direction and keep the top sole direction inertia moment.

Chappell discloses fairway woods having a loft angle of 19-30 degrees (Col. 7, Lns. 50-60, Clubs number 5 and 7). In view of the patent of Chappell it would have been obvious to modify the wood of JP 5-317465 to include fairway woods having a loft angle of 19-30 degrees in order to have woods which are more accurate than a driver to select from while playing a round of golf. In addition, it would have been obvious to

modify the head of JP 5-317465 to include fairway woods in order to utilize that advantages of JP 5-317465 for fairway woods which is to decrease an amount of spin, increase flying distance, and make it easy to fly up.

Davis discloses a driver and each of a plurality of fairway woods having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset is approximately zero (Fig. 12). In view of the patent of Davis it would have been obvious to modify the set of clubs of claims 2-5 of U.S. Patent No. 6,623,374 to have a driver and each of a plurality of fairway woods having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset is approximately zero in order provide a set of woods to a professional who does not need an offset to maintain his hand forward of the face at impact.

14. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-317465 in view of Uchiyama, JP 2000-15765, Chappell and Davis as applied to claim 1 above, and further in view of Burrows.

JP 5-317465 lacks a driver and plurality of fairway woods composed of stainless steel or titanium alloy. Burrows discloses metal type wood heads (Col. 1, Lns. 52-62) being composed of stainless steel or titanium alloy (Col. 1, Lns. 63-67). In view of the patent of Burrows it would have been obvious to modify the woods of JP 5-317465 to be composed of stainless steel or titanium alloy in order to utilize the advantages of these materials for a wood head.

15. Claims 4-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-317465 in view of Uchiyama, JP 2000-15765, Chappell and Davis as applied to claim 1 above, and further in view of Kilshaw.

JP 5-317465 lacks a driver and each of the plurality of fairway woods having an equal face progression. Kilshaw discloses a set of wood shafts having the same tip external diameter (Tables 2-3). In view of the patents of Kilshaw and Davis it would have been obvious to have a driver and each of the plurality of fairway woods having an equal face progression in order to use the same size hosel for each of the woods in a set and to reduce the different number of parts needed to be designed and manufactured for a set of woods.

16. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-317465 in view of Uchiyama, JP 2000-15765, Chappell, Davis, Wilson and Sacco (5,716,288).

JP 5-317465 lack a plurality of irons having a front wall, a bottom wall extending rearward from a bottom end of a front wall, a top wall extending rearward from a top end of a front wall, an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset is approximately zero and irons having a loft from 29-60 degrees.

Wilson discloses a front wall, a bottom wall extending rearward from a bottom end of a front wall, and a top wall extending rearward from a top end of a front wall (Fig.

7). In view of the patent of Wilson it would have been obvious to modify the set of clubs of JP 5-317465 to have a plurality of irons having a front wall, a bottom wall extending rearward from a bottom end of a front wall, and a top wall extending rearward from a top end of a front wall in order to have irons as well as woods in playing a round of golf.

Sacco discloses a plurality of irons having a loft from 29-60 degrees (Col. 6, Lns. 40-46) having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset is approximately zero (Col. 7, Lns. 7-10). In view of the patent of Sacco it would have been obvious to modify the set of clubs of JP 5-317465 to have a plurality of irons with a loft from 29-60 degrees having an equal hosel offset as measured from a farthest front portion of the hosel to a farthest front portion of the front wall and the hosel offset being approximately zero in order provide irons with different ranges than woods to a professional who does not need an offset to maintain his hand forward of the face at impact.

See paragraphs above for elements of structure previously rejected by JP 5-317465 in view of Uchiyama, JP 2000-15765, Chappell, and Davis.

17. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-317465 in view of Uchiyama, JP 2000-15765, Chappell, Davis and Kilshaw as applied to claims 4-5 and 7 above, and further in view of Miyamoto.

JP 5-317465 lacks a driver having a volume greater than 300 cc and fairway woods having a volume less than 300 cc. Miyamoto discloses a driver having a volume greater than 300 cc and fairway woods having a volume less than 300 cc (Table 2). In

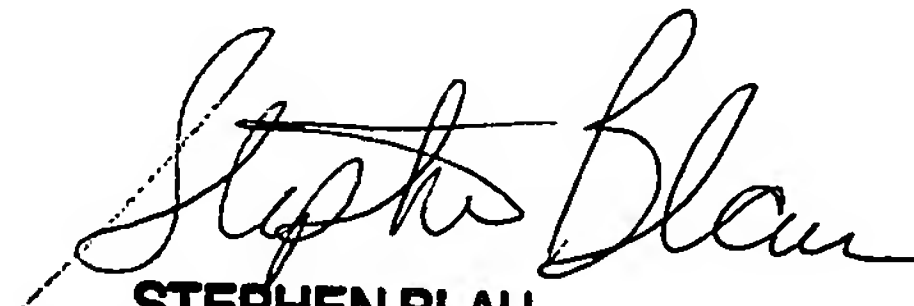
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view of the patent of Miyamoto it would have been obvious to modify the set of woods of JP 5-317465 to have a driver having a volume greater than 300 cc and fairway woods having a volume less than 300 cc in order to utilize volumes for a set of woods used in the market place.

### ***Conclusion***

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Blau whose telephone number is (703) 308-2712. The examiner is available Monday through Friday from 8 a.m. to 4:30 p.m.. If the examiner is unavailable you can contact his supervisor Greg Vidovich whose telephone number is (703) 308-1513. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858. (TC 3700 Official Fax 703-872-9306)

slb/ 27 May 2004

  
**STEPHEN BLAU**  
**PRIMARY EXAMINER**